



DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[Docket No. CDC-2017-0089]

Systematic Review and Final CDC Guideline on the Diagnosis and Management of Mild Traumatic Brain Injury Among Children

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice; availability of final guidance

SUMMARY: The Centers for Disease Control and Prevention (CDC), located within the Department of Health and Human Services (HHS), announces the availability of the Systematic Review and Final CDC Guideline on the Diagnosis and Management of Mild Traumatic Brain Injury Among Children.

DATES: CDC published the final Systematic Review and Final CDC Guideline on the Diagnosis and Management of Mild Traumatic Brain Injury Among Children on September 4, 2018 in *JAMA Pediatrics*.

FOR FURTHER INFORMATION CONTACT: Arlene I. Greenspan, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 4770 Buford Highway N.E., Mailstop F-63, Atlanta, Georgia 30341. Telephone: (770) 488-4694; email: duipinquiries@cdc.gov.

SUPPLEMENTARY INFORMATION: On September 29, 2017, CDC published a notice in the Federal Register announcing the opening of a docket to obtain public comment on a Systematic Review of the evidence on the diagnosis, prognosis, and management of pediatric mild traumatic brain injury (mTBI), and an evidence-based Guideline that offers clinical recommendations for healthcare providers

(82 FR 45588). CDC also provided an opportunity for public comments during the National Center for Injury Prevention and Control's Board of Scientific Counselors meeting on September 7, 2016 (81 FR 49657).

The Systematic Review and Guideline were developed through a rigorous process guided by the American Academy of Neurology methodology and 2010 National Academy of Sciences methodology for the development of evidence-based guidelines. An extensive review of the scientific literature, spanning 25 years of research, formed the basis of the Guideline.

The goal of the CDC Guideline is to help healthcare providers take action to improve the health of their pediatric patients with mTBI. The Guideline consists of 19 clinical recommendation sets that cover diagnosis, prognosis, and management and treatment. These recommendations are applicable to healthcare providers working in inpatient, emergency, primary, and outpatient care settings.

CDC received comments on the draft Systematic Review and Guideline from two external peer reviewers:

- fBoth provided references for literature that was published following the close of the literature review period for the Guideline and Systematic Review. Both reviewers requested details about definitions of terms such as mTBI and concussion and how they are similar or different.
- oOther comments focused on how an existing consensus statement on sports-related concussion aligns with CDC recommendations; lack of information available on children who never seek medical attention to highlight this current information gap; and specificity of the recommendations for clinicians in the acute care and outpatient settings.

CDC also received 10 public comments from professional organizations, academia, and the public:

- iFive were from medical and clinical professional organizations. These groups shared their perspective on diagnosis and treatment of mTBI and how specialty groups are affected differently.

- fTwo were from community members and parents sharing their support of the work.
- wOne was from a commenter who did not provide an affiliation. The commenter shared concerns regarding how the level of evidence was graded.
- fOne was from a healthcare provider who shared citations for consideration.
- nOne was from an advocacy group that provided a comment outside the scope of the docket.

A summary of the revisions made to the final Systematic Review and Guideline based on external peer reviewer comments are posted in the Supporting Documents section of the docket (document titled “Ped mTBI Guideline Response to Peer Reviewer Comments”).

CDC also revised the document based on public comments. For example, a few commenters expressed concern regarding recommendations not being applicable in the emergency care setting. As the clinical recommendations in the guideline were created for both the acute care and primary care setting, CDC added language to emphasize that the recommendations were drafted to be relevant for both settings. As another example, multiple comments were received regarding the content in the systematic review on the use of CT imaging. Commenters explained that current evidence that provides the basis for CT imaging focus on ruling out clinically-important traumatic brain injury among pediatric patients presenting with a TBI. In response, CDC revised the conclusion to specify that the recommendations are for children presenting with mTBI versus TBI of all severity levels in the acute care setting.

All public and peer reviewer comments were carefully reviewed and considered to strengthen and improve the quality of the Systematic Review and Guideline. The final Systematic Review and Guideline on the Diagnosis and Management of Mild Traumatic Brain Injury Among Children can be found at

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2698456?guestAccessKey=80a9ecdc-ea57-447d-a1b3-b4a87cadd40d>(Guideline) and

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2698455?guestAccessKey=24b78e3d-571f-49fb-9daf-499d2b3e2cc1> (Systematic Review).

Dated: September 5, 2018.

Lauren Hoffmann,

Acting Executive Secretary,

Centers for Disease Control and Prevention.

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